Insp.

Stamp

March 10, 2010 9:55:36 AM D205-634-041 Accept Item ID: Setup Start **Revision ID:** Stop Replacement Skidtube Item Name: **Start Date:** Start Qty: 1.00 10/03/2010 **Cust Item ID: Required Date: 26/03/2010** Req'd Qty: 1.00 **Customer:** Reference: Run Start **Approvals:** Tooling: Date: Stop QC: ___ Date: **SPC (Y/N):** Date: Sequence ID/ Operation Set Up/ Draw Draw Plan Reject Accept Reject Work Center ID Description **Run Hours** Number Rev. Qty Qty Code Number Draw Nbr **Revision Nbr** D2580 Rev D 100 0.00 DOCUMENT CONTROL 0.00 Memo Document Control Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

110

CNC Bend 1

BENDING MACHINE - SKIDTUBES

Memo

0.00

0.00

CNC Delta 100 Bender

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

H 10/3/15

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W/O:			WO	RK ORDER CHANG	SES				€ '•			
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	By Date Qty Approval Chief Eng / Prod Mgr						
Part No	:	PAR #:	Fault Cate	jory:	_ NCR: Yes	No DQ	A:	_ Date: _				
	Resc	olution:	Disposition	n:	QA: N/C CI	osed:	Date:					
NCR:			WORK ORDE	R NON-CONFORM	ANCE (NCF	R)						
DATE	STEP	Description of NC			tion B	Verifi	cation	Approvai	Approval			
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Page 2

March 10, 2010 9:55:36 AM

Required Date: 26/03/2010

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/03/2010

QC:

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Date:

Tooling:

0.00

0.00

SPC (Y/N):

Date:

Date:

Start Run

Stop

Sequence ID/ **Work Center ID**

120

Skidtubes

Skidtubes

Description

Operation

Set Up/ **Run Hours** Draw Number Draw Plan Rev. Code

Accept Qty

Reject Qty

Reject Insp. Number Stamp

W10/3/16

Memo

1- Deburr ends

QC5- Inspect part completeness to step on W/O

- 2- C'sink holes as per dwg without cutting fluid
- 3- Prepare tube for welding, remove alodine as required.
- 4- Scribe batch number insied aft end of tube.

130

QC

Memo

Quality Control

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W/O: WORK ORDER CHANGES DATE STEP PROCEDURE CHANGE By Date Qty Chief Eng / Prod Mgr	Approval QC Inspector
Part No:	
Resolution: Disposition: QA: N/C Closed: Date: _	
NCR: WORK ORDER NON-CONFORMANCE (NCR)	
DATE STEP Description of NC Corrective Action Section B Verification Approval	Approval
Section A Initial Action Description Sign & Section C Chief Eng Chief Eng	QC Inspector

Work Order ID 56792

March 10, 2010 9:55:36 AM

Required Date: 26/03/2010



Page 3

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name: Start Date:

Replacement Skidtube

10/03/2010

Start Oty: 1.00 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals:	Process Plan: QC:	Date:	Tooling: SPC (Y/N):		ate:		F	Run Start Stop			
Sequence ID/ Work Center II	Operation Description		Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
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Skidtubes	Memo		0.00								

Skidtubes

I-Weld step D2576 as per Dwg. D2580 and OSI 004 A/Rala Aluminum Rod M1320 7

BE 10/03/23

2-Prep per QSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill A/RDDD Aluminum Rod

BE 10/03/23

3-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64". adjust stopper not to hit web. Deburr

5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580. Deburr holes

6-Drill pilot holes for aft cap using DT 8215Open holes to 0.208". Deburr

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

BE +0/03/23

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W/O:			WC	RK ORDER CHANGI	ES				ť.,
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Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date:	
<u> </u>	Res	solution:	Dispositio	n:	QA: N/C CI	osed:		Date: _	
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March 10, 2010 9:55:36 AM

Required Date: 26/03/2010

Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID: Item Name:

Replacement Skidtube

Start Date:

10/03/2010

Start Oty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date: _____

Tooling:

Date:

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/ **Work Center ID**

Quality Control

Operation **Description**

QC10- Inspect visual per QSI004- ground welds

Set Up/ **Run Hours**

Draw Number

Draw Rev.

Plan Code

Accept Qty

Reject Qty

Run

Reject Number

Insp. Stamp

OC

Memo

160

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

0.00

170

Pressure Wash per QSI005 4.3

Memo

0.00

HandFinish

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd cap out of solution.

BK 10-3-24 D d.

W/O:			WO	RK ORDER CHANGI	ES				
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Work Order ID 56792

March 10, 2010 9:55:36 AM

Required Date: 26/03/2010



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Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name:

Replacement Skidtube

Start Date:

10/03/2010

QC:

Start Qty: 1.00

Req'd Qty: 1.00



Date:____

Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:____

Date:

Plan

Code

Draw

Rev.

Start Run

Reject

Qty

Stop

Reject



Number Stamp

Insp.

Sequence ID/ Work Center ID

180

Powdercoat

Powder Coating

Operation Description

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

M113170

Memo

START TIME:

OVEN TEMPERATURE: 3700 (= FINISH TIME:

Set Up/ **Run Hours**

0.00

SPC (Y/N):

10/03/24

Accept

Qty

190

QC

Quality Control

QC3- Inspect Part Finish

Memo

BL 10-3-30

0.00

W/O:			WC	ORK ORDER CHANG	ES					•
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March 10, 2010 9:55:37 AM

Required Date: 26/03/2010

Page 6

Item ID:

D205-634-041

Accept



Setup Start



Revision ID: Item Name:

Replacement Skidtube

Start Date:

10/03/2010

Start Qty: 1.00 Reg'd Otv: 1.00

Cust Item ID: Customer:

Reference:

Process Plan: Date: Tooling: Approvals:

Date:

Start

Stop



QC:

Date: _____

SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

HandFinish Hand Finishing **Operation** Description

Set Up/ **Run Hours** Draw Number

Draw Rev.

Plan Accept Code Qty

Reject Qty

Run

Reject Number Stamp

Insp.

Memo

0.00

0.00

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of

1-Install inserts & wearplates Sikaflex on insert holes before installing wearplates

Sikaflex expire date:

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with

Sikaflex. Clean excess adhesive A/R

CE Sikaflex-291

Sikaflex expire date:

Sikaflex expire date:

BL 10-3-31

W/O:			WC	ORK ORDER CHAN	GES		***************************************			, .
DATE	STEP	PRO	OCEDURE CHA	NGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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Work Order ID 56792

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Required Date: 26/03/2010



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Item ID:

D205-634-041

Accept



Setup Start

Stop



Revision ID:

Item Name: **Start Date:**

Replacement Skidtube

10/03/2010

Start Qty: 1.00

Rea'd Oty: 1.00



Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Date:

SPC (Y/N):

Date:

Stop

Start

Sequence ID/ Work Center ID

OC

Ouality Control

Operation **Description**

QC5- Inspect part completeness to step on W/O

Set Up/ **Run Hours**

Draw Rev.

Plan Code

Accept Reject Qty Qty

Reject Number

Stamp

Memo

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for

0.00

0.00

Foreign objects per OSI 024

220

Packaging Packaging

Packaging

Memo

Identify and pack for shipping as per PPPD205-634-041

Location:

PPP Rev:

0.00

0.00

91057238

230

Quality Control

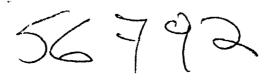
QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

10/04/159 MF 10-4-14



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W/O:			WC	RK ORDER CHANG	SES					
DATE	STEP	PRO	OCEDURE CHA	NGE	E	у	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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March 10, 2010 9:59:28 AM

Work Order ID: 56792

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

SS Wearplates & Gaskets JLM IPP Rev:P 07-07-09

Page 1

Start Date: 10/03/2010

Required Date: 26/03/2010

Start Qty: 1.00

Required Qty: 1.00



Manufactured No

110

4.0000

1.0000

		Warehouse	Loc	c Qty	Loc Code	
		Location				
		Main Warehouse				
		LG		4		
		54541		2		
		56121		2		
Manufactured	No		140	Each	130.0000 1.0000	

D2576-3



Step (maching detail)

Each



156767 D MI03/15

warenouse	Loc Qty	Loc Code	•
Location			
Main Warehouse			
ST	130	L	 , ,
46661	83	A.	 DE 1403/2
52215	47	, .	 , ,

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NCR:			WORK ORDI	ER NON-CONFORM	ANCE (NC	R)						
DATE	STEP	Description of NC			ion B	Verific	Verification Approve		Approval			
DATE	SILF	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Secti	ion C	Chief Eng	QC Inspector			

March 10, 2010 9:59:28 AM

Work Order ID: 56792

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EG

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Date: 10/03/2010

Required Date: 26/03/2010

Start Qty: 1.00

Required Qty: 1.00

Crossbolt Spacer

Manufactured No

140

Each

147.0000 20.0000



<u>Warehouse</u>	Loc Qty	Loc Code	
Location			
Main Warehouse			
LG	25		
51525	4		
53780	3		
54543	18		
Main Warehouse			
ST	122		
43988	4		
46434	4		
46956	2		
47797	9		_
48272	2		
51314	71		
51315	30		

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B 56818

(* 20)

BE 10/03/23

W/O:			WC	RK ORDER CHANGE	S					
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Part No	:	PAR #:	_ Fault Cate	gory:	NCR: Yes	No DQ	\ :	Date:		
						Closed: Date:				
NCR:		V	ORK ORDE	R NON-CONFORMA	NCE (NCR)				
DATE	STEP	Description of NC			Section B Verification Approval Appro			Approval		
		Section A	Initial Chief Eng	Action Description Chief Eng	ion Sign & Section C		on C	Chief Eng	QC Inspector	
					ļ					

Picklist Print

March 10, 2010 9:59:28 AM

Work Order ID: 56792

Parent Item:

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

Purchased

No

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

D2855

Manufactured No

200

Each

142.0000 1.0000

Start Date: 10/03/2010

Start Qty: 1.00

Сар

Warehouse	Loc	e Oty	Loc Code		
Location					
Main Warehouse					
ST026		142			
50513		1			
50770		1			
51539		37			1 1/10-3-31
53791		103			
	200	Each	1,405.000 2.	.0000	

Rolt

AN3-5A

Warehouse	Loc Qty	Loc (
Location		
Main Warehouse		
ST350	1405	
100188 105057	188	
105057√	1217	

Code

= 15/ 10-3-31.

Page 3

Required Date: 26/03/2010

Required Oty: 1.00

W/O:			W	ORK ORDER CHANG	ES				, ,		
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Required Date: 26/03/2010

Required Qty: 1.00

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March 10, 2010 9:59:29 AM

Work Order ID: 56792

D205-634-041

Parent Item Name: Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N \square 02.08.28 \square FP was QC5 in Step 27; Added QC5 to Step 30 \square KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

AN960JD10L

Purchased

No

200

Each

3,105.000 2.0000

Start Qty: 1.00

Start Date: 10/03/2010

Washer

Warehouse		oc Qty	Loc Code	
Location				
Main Warehouse				
ST348		3105		
101291		16		
105793		49		
110985		3040		
	200	Eoch	004 0000	50,0000

ALS7-1032-130

Purchased

No

986.0000 50.0000



Insert

Warehouse Location	Loc Oty	Loc Code
Main Warehouse		
ST282	986	
108606	52	
111529	130	
111779	34	
112772	11	
113238	759	50 DK 10-3-31

W/O:			WO	RK ORDER CHANG	ES				3 ¥	
DATE	STEP	PRO	CEDURE CHAN	IGE	Ву	Dat	e Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	:	PAR #:	Fault Categ	ory:	NCR: Y	es No	DQA:	Date:		
	Resolution: Disposition:				_ QA: N/C	QA: N/C Closed: Date:				
NCR:		V	VORK ORDE	R NON-CONFORMA	NCE (N	CR)				
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Picklist Print

March 10, 2010 9:59:29 AM

Work Order ID: 56792

Parent Item:

D205-634-041

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Replacement Skidtube

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IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

AN3C4A

Purchased

No

200

Each

1,499.000 50.0000

Start Date: 10/03/2010

Start Qty: 1.00

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<u>Warehouse</u>	Loc Oty	Loc Code	
Location			
Main Warehouse			
ST350	1499		
112314	13		
112720	12		
112724	3		
112829	1		
112991	2		
113121	64		
113226	344		17 bk 10-3-31.
113644	12		
113749	48		<i>Y</i>
114103✔	500		<u> 35.</u>
114108	500		<u>-</u>

Page 5

Required Date: 26/03/2010

Required Qty: 1.00

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Required Date: 26/03/2010

Required Qty: 1.00

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March 10, 2010 9:59:29 AM

Work Order ID: 56792

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

Parent Item:

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IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

AN960C10L

Purchased

No

Warehouse

Location

200

Each

Loc Qty

Loc Code

388.0000 50.0000

Start Date: 10/03/2010

Start Qty: 1.00

washer

NAS1149C 033AR

Manufactured

OFFSHORE FG 100 103585 100 Main Warehouse ST 288 112116 128 112612 160

> 200 Each

72.0000 1.0000



Gasket

D3566-13

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
FP /	70	
53461 🗸	70	1 10-3-31
Main Warehouse		•
ST	2	
45717	1	
50265	1	

W/O:	•		WC	RK ORDER CHANG	ES					
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DATE	STEP	Description of NC	Corrective Action Section B				Verific	ation	Approval	Approval
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Picklist Print

Parent Item Name:

March 10, 2010 9:59:29 AM

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Work Order ID: 56792

D205-634-041

Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Date: 10/03/2010 Start Qty: 1.00

Required Date: 26/03/2010

Required Qty: 1.00

D3566-5

Manufactured No

200

Each

23.0000 1.0000

Gasket

Warehouse Location	Loc Oty	Loc Code	
Main Warehouse			
FP19	19		
55026 55335	• 7 12		BK 10-3-31.
Main Warehouse			
ST	4		
36113	1		
46186	1		
47318	1		
51260	ì		

Dart Aeros	pace Ltd
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W/O:		·	WORK ORDER CHANGES									
DATE	STEP	PRO	OCEDURE CHA				Approval Chief Eng / Prod Mgr	Approval QC Inspector				
		,	····									
Part No		PAR #:	Fault Cate	egory:	NCR: Ye	es N	o DQ A	\:	_ Date: _			
Resolution:			Disposition: Q			QA: N/C Closed: Date:						
NCR:			WORK ORE	ER NON-CONFORMA	NCE (N	CR)						
DATE	STED	Description of NC	Corrective Action Section B						Approval	Approval		
DATE STEP Description of NC Section A	Initial Chief Eng	Action Description Chief Eng		n & ate	Chief Eng	QC Inspector						
:												
				V - V								
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March 10, 2010 9:59:29 AM

Work Order ID: 56792

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Date: 10/03/2010

Required Date: 26/03/2010

Start Qty: 1.00

Required Qty: 1.00

D3566-1

Manufactured No

200

Each

33.0000 2.0000

Gasket

Warehouse	Lo	oc Oty	Loc Code		
Location					Λ Λ
Main Warehouse					al bk 10-3-31
FP 56825		28			01 Nr 10-59
52512		3			
54480		1			
55011		1			
55320		3			bk 10-3-31
56532 🗸		20			_ DF 10-5-51
Main Warehouse					· •
ST		5			
46349		1			
51218		1			
51259		3			
	200	Each	9.0000	1.0000	

D3564-11

Manufactured

No

Wearshoe

Warehouse	Loc Oty	Loc Code	
Location			
Main Warehouse FP19 56834	7		0 bl 10-3-31
55332	7		
Main Warehouse			
ST	2		
45823	1		
50112	1		

W/O:			WORK ORDER CHANGES							
DATE	STEP	PRO	PROCEDURE CHANGE				Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
			16400-							
Part No):	PAR #:	Fault Categ	jory:	NCR: Ye	s No DC)A:	Date: _		
Resolution:		esolution:	Disposition	_ QA: N/C	QA: N/C Closed: Date:					
NCR:			WORK ORDE	R NON-CONFORMA	NCE (NC	R)				
DATE	STEP	Description of NC	Corrective Action Section			Verif	ication	Approval	Approvai	
	JILI	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Section C	Chief Eng	QC Inspector			

Picklist Print

March 10, 2010 9:59:29 AM

Page 9

Required Date: 26/03/2010

Required Qty: 1.00

Bf 12-3-31.

Work Order ID: 56792

Parent Item:

D205-634-041

Replacement Skidtube

Parent Item Name: Comments:

IPP Rev:N \square 02.08.28 \square FP was QC5 in Step 27; Added QC5 to Step $30 \square KJ$ IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09

SS Wearplates & Gaskets JLM

200

Each

33.0000

1.0000

Start Date: 10/03/2010

Start Qty: 1.00

No

Manufactured

Manufactured

Wearshoe

D3564-13

Warehouse Location	<u>L</u>	oc Oty	Loc Code	
Main Warehouse				
FP17		21		
56285		21		
Main Warehouse				
ST		12		
45409		2		
46495		10		
	200	Each	18.0000	1.0000

D3564-9

Wearshoe

Warehouse	Loc Oty	Loc Code	
Location			
Main Warehouse			
FP19	16		
55025 /	4		60 12 22
55334	12		102 10-3-31.
Main Warehouse			•
ST	2		
44659	1		
45825	1		

W/O:			WC	RK ORDER CHANG	ES				•
DATE	STEP	PROCEDURE CHANGE				Da	ate Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
					****			. roa mg.	
			*						
Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Y	es No	DQA:	Date: _	
						sed: Date:			
NCR:			WORK ORDI	ER NON-CONFORMA	ANCE (N	CR)		,	
DATE	STEP	Description of NC	Description of NC		ion B		Verification	Approval	Approval
DATE	SIEF	Section A	Initial Chief Eng	Action Description Chief Eng		ın & ate	Section C	Chief Eng	QC Inspector
k E									
·									
	+			***************************************					
						1			

Picklist Print

March 10, 2010 9:59:29 AM

Page 10

Work Order ID: 56792

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30日KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Start Date: 10/03/2010

Required Date: 26/03/2010

Required Qty: 1.00

D3564-5

Manufactured

No

200

Each

33.0000 1.0000

Wearshoe

Warehouse	Loc Qty	Loc Code	
Location			
OFFSHORE			
FG	2		
34806	2		
Main Warehouse			
FP19	29		
51925	1		
54772	4		- bil . a a
55024	12		= 1 DL 10 -3-31.
55333	12		
Main Warehouse			
ST	2		
45824	1		
47433	1		

W/O:		WORK ORDER CHANGES								
DATE	STEP	PRO	OCEDURE CHANGE By Date C					By Date Qty Approval Chief Eng / Prod Mgr		
Part No):	PAR #:	Fault Cate	jory:	NCR: Yes	No DQ	A:	Date:		
	Re	solution:	Disposition	n:	QA: N/C Clo	osed:	· ·	Date: _		
NCR:			WORK ORDI	R NON-CONFORMA	NCE (NCR)				
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval	
	O1L:	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Sect	ion C	Chief Eng	QC Inspector	
								:		
					; ;					

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Page 11

Required Date: 26/03/2010

Required Qty: 1.00

Work Order ID: 56792

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N□02.08.28□FP was QC5 in Step 27; Added QC5 to Step 30□KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

D2594-3

Manufactured

No

200

Each

500.0000 16.0000

Start Date: 10/03/2010

Start Qty: 1.00

O-Ring, 205 Skidtube

Warehouse	Loc Qty	Loc Code	
Location			
Main Warehouse			
FP	487		
51613	27		-16 by 10-3-31.
55546	460		16. Pt 10.3.31.
Main Warehouse			
ST	13		
52562	13		

Dart Aerospa	ce Ltd
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W/O:			W	ORK ORDER CHANG	ES						
DATE	STEP	PRO	CEDURE CH		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		

						,					
Part No	:	PAR #:	Fault Cat	egory:	_ NCR	: Yes N	10 DQ /	A:	Date:		
	R	esolution:	Disposition: QA: N/C Closed					sed: Date:			
NCR:		V	VORK ORI	DER NON-CONFORMA	NCE	(NCR)					
DATE	STEP	Description of NC		Corrective Action Section	on B	<u> </u>	Verific	ation	Approval	Approval	
- JAIL	J	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Secti	on C	Chief Eng	QC Inspector	

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March 10, 2010 9:59:29 AM

Page 12

Required Date: 26/03/2010

Required Qty: 1.00

Work Order ID: 56792

D205-634-041

Parent Item Name:

Replacement Skidtube

Comments:

Parent Item:

IPP Rev:N \square 02.08.28 \square FP was QC5 in Step 27; Added QC5 to Step 30 \square KJ

IPP Rev P 10.02.19 per PAR09-043 EC verified by:DD

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

D2594-1

Manufactured No

Each

200

577.0000 16.0000

Start Date: 10/03/2010

Start Qty: 1.00

Plug, 205 Skidtube

Warehouse	Loc Qty	Loc Code	
Location			
Main Warehouse			
FP	449		
54008	1		
54643	15		
55002	433		16.12/03.31
Main Warehouse			
ST	128		
42221	16		
42807	92		
43884	3		
46435	2		
51527	9		
51757	6		

	. Johaco								
W/O:			WO	RK ORDER CHANG	ES			, , , , , , , , , , , , , , , , , , , ,	
DATE	STEP	PRO	OCEDURE CHAN	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
						· · · · · · · · · · · · · · · · · · ·			
Part No	:	PAR #:	Fault Categ	jory:	_ NCR: Yes	No DQ	A:	Date: _	
	Re	esolution:	Disposition	:	_ QA: N/C C	losed:		Date: _	
NCR:			WORK ORDE	R NON-CONFORMA	ANCE (NC	R)			
DATE	CTED	Description of NC		Corrective Action Section		Verifi	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Sect	ion C	Chief Eng	QC Inspector
		70							
1	1	I	· I		ı	ı		i	1



05010		Tagains as	
DESIG	#	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHEC	(EDW	APPROVED	DRAWING NO. REV. D
	W.		D2580 SHEET 1 OF 3
DATE			TITLE SCALE
07.0	2.27		205 SKIDTUBE ASSEMBLY NTS
Α		96.09.16	NEW ISSUE
В		96.12.02	AS MANUFACTURED
С		98.08.26	REDRAWN, INCLUDED DEO 9094/9097
D		07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183



QTY -041	QTY -045	Part Number	Description
X	-049	D2580-041	SKIDTUBE ASSEMBLY
	Х	D2580-045	SKIDTUBE ASSEMBLY
	<u> </u>	D2300-043	GRID OBL ASSEMBLI
1	1	D2500-1-190	EXTRUSION
 	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2579 D2594-1	PLUG PLUG
16	16	D2594-1	O-RING
1 1	1	D2594-3	205 WEB
1	1	D2855	AFT CAP
1	1	D2655 D3564-5	
1	 	D3564-9	WEARSHOE
	1		WEARSHOE
1	1	D3564-11	WEARSHOE
		D3564-13	WEARSHOE
2	2	D3566-1	GASKET
11	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130	INSERT
		or AKS7-1032-130	
		or AKS4-1032-130	
		or AELS-1032-130	
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

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ENGINEERING
UNCONTROLLED COP
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 26193

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:

SEE NOTES ON

PAGE 2 FOR D2580-041 AND

PAGE 3 FOR D2580-045

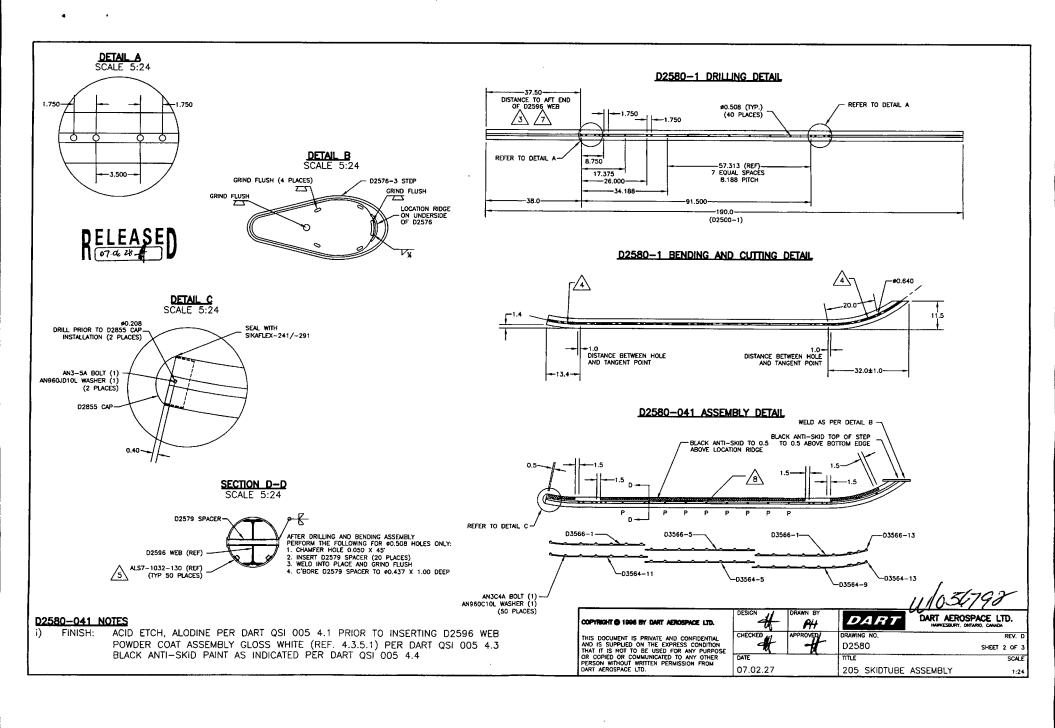
 INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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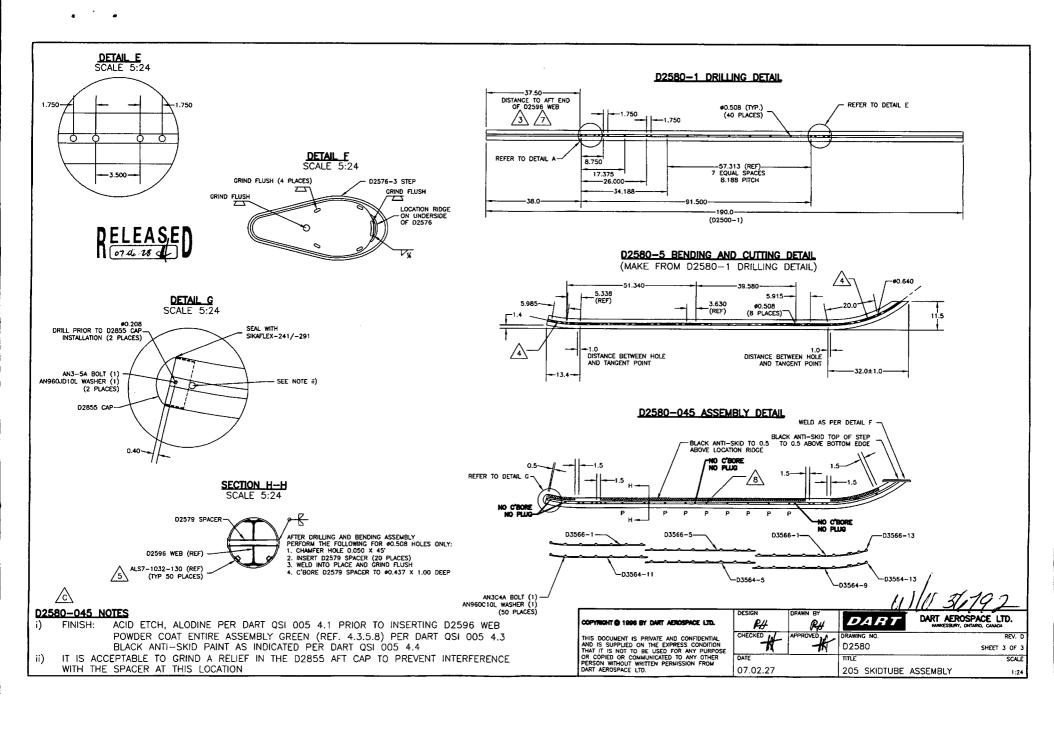
Dart Aerospace Ltd	Dart	Aeros	pace	Ltd
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W/O:			W	ORK ORDER CHAN	NGES					,
DATE	STEP	PRO	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No		PAR #:								
NCR:	He	solution:		n:ER NON-CONFORI					Date:	
HCA.	1								· · · · · · · · · · · · · · · · · · ·	Т
DATE	STEP	Description of NC Section A	Initial Chief Eng	Action Descriptio Chief Eng		Sign & Section B Sign & Section Secti			Approval Chief Eng	Approval QC Inspector
				· · · · · · · · · · · · · · · · · · ·		***				
					=					:



Dart Aero	space	Ltd
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	•							
W/O:			WC	ORK ORDER CHANGE	S			•
DATE STEP		PROCEDURE CHANGE			Ву	Date Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	o:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQA:	Date: _	
Resol		esolution:	Disposition:		QA: N/C Closed: Date:			
NCR:			WORK ORDI	ER NON-CONFORMA	NCE (NCR)		
		Description of NC	tion of NC Corrective Action		n B	Verification	Verification Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	QC Inspector



Dart	Aeros	pace	Ltd
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Dark Acrospace Ltu									
W/O:			WORK ORDER CHANGES						
DATE	STEP	PR	OCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
								:	
						ļ			
Part No) :	PAR #:	Fault Category:	NCR: Ye	s No DQ	A :	_ Date: _		
	Resolution:		Disposition:	QA: N/C	Closed:		Date:	·····	

NCR:		,	WORK ORDER NON-CONFORMANCE (NCR)								
	STEP	Description of NC		Corrective Action Section B							
DATE		Section A	Initial Action Description Chief Eng Chief Eng		Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector			
						ł					
		, , , , , , , , , , , , , , , , , , ,									
		•									

NO. <u>22</u>7

AWS D17.1.2001 QUALIFICATION TEST RECORD

Name: Bardag Elliett	
Job number: 569250	
Part number: D205-134-041	
Description: 205 skid tube	
Welding Process: Tig[\(\sum \) Mig[]	
Base materiel: Aluminium	
Current: AC[\(\sum \) DC[]	

TEST REQUIREMENTS AND RESULTS

Visual:	pass[√]	fail[]
Penetration:	pass[/]	
UNACCEPTABLE		
Cracks:	pass[/]	fail[]
Undercut:	pass	fail
Pin holes:	pass[1]	fail[]
Overlap (cold lap)	pass[]	fail[]
Porosity (surface):	pass[1]	fail[]
Coloration:	pass[~]	fail[]
į		·
Qualifier Lad Sur	_Date of Te	st Coupon 🖰 😂 😘
Welder Booler, Stut	Date of Te	est Coupon <u>/ (- (3 - / 9</u>

The above named individual is qualified in accordance with AWS D17.1.2001 to weld